

Dataset Expocode	91AH20150722
Primary Contact	Name: Warren Ryan Joubert Organization: CSIR SOCCO Address: 11 Jan Cillierstreet, Stellenbosch, 7600, Republic of South Africa Phone: +27218882555 Email: wjoubert@csir.co.za
Investigator	Name: Monteiro, Dr. Pedro M.S. Organization: CSIR SOCO Address: CSIR, Lower Hope Street, Rosebank, Cape town, 7700 Phone: +27216583990 Email: pmonteir@csir.co.za
Dataset	Funding Info: Department of Science and Technology, CSIR Parliamentary Grant, SANAP, NRF Initial Submission (yyyymmdd): 20160131 Revised Submission (yyyymmdd):
Campaign/Cruise	Expocode: 91AH20150722 Campaign/Cruise Name: SOSCEXIII_WINTER2015 Campaign/Cruise Info: Platform Type: CO2 Instrument Type: Equilibrator-IR or CRDS or GC Survey Type: Research Cruise Vessel Name: SAAgulhasII Vessel Owner: Vessel Code: 91AH
Coverage	Start Date (yyyymmdd): 20150722 End Date (yyyymmdd): 20150814 Westernmost Longitude: 1 W Easternmost Longitude: 18 E Northernmost Latitude: 33 N Southernmost Latitude: 57 N Port of Call: Cape Town
Sea Surface Temperature	Location: 5m below surface, ships hull Manufacturer: SBE Model: SBE-38 Accuracy: 0.001 (°C if units not given) Precision: 0.001 (°C if units not given) Calibration: Serialnumber: 38425330275 Comments:
Sea Surface Salinity	Location: Manufacturer: Model: Accuracy: Precision: Calibration: Comments:
Atmospheric Pressure	Location: Ship bridge Normalized to Sea Level: yes Manufacturer: Vaisala

Model: Baro Pressure
Accuracy: 0.15hpa (hPa if units not given)
Precision: 0.2hpa (hPa if units not given)
Calibration: yes, calibration number CSANAS1956.998
Comments:

Atmospheric CO2

Measured/Frequency:
Intake Location:
Drying Method:
Atmospheric CO2 Accuracy: 0.5 uatm
Atmospheric CO2 Precision: 0.5 uatm

**Aqueous CO2
Equilibrator Design**

System Manufacturer: General Oceanics pCO2
Intake Depth: 5
Intake Location: ship hull
Equilibration Type: spay/shower
Equilibrator Volume (L): 3
Headspace Gas Flow Rate (ml/min): 100
Equilibrator Water Flow Rate (L/min): 3
Equilibrator Vented: Yes
Equilibration Comments:
Drying Method: >99%

**Aqueous CO2
Sensor Details**

Measurement Method: IR
Method details:
Manufacturer: LICOR
Model: LICOR-7000
Measured CO2 Values: xCO2(dry)
Measurement Frequency: 60
Aqueous CO2 Accuracy: 1 uatm
Aqueous CO2 Precision: 0.5 uatm
Sensor Calibrations: LICOR IR sensor is calibrated using a range 4 of calibration gases calibrated by the Global Atmospheric Watch station at Cape Point, traceable to reference standards from NOAA
Calibration of Calibration Gases: Ship
Number Non-Zero Gas Standards: 3
Calibration Gases:
Cape Point Weather Station (South African Weather Services),
Comparison to Other CO2 Analyses:
Comments:
Method Reference:

**Equilibrator
Temperature Sensor**

Location: Resistance Thermometer, inserted inside the equilibrator
Manufacturer: Fluke
Model: Fluke 1521 (5610-6)
Accuracy: 0.01 (°C if units not given)
Precision: 0.01 (°C if units not given)
Calibration: Yes, documentation available
Comments:

**Equilibrator
Pressure Sensor**

Location: Attached to equilibrator cap/lid
Manufacturer: SETRA
Model: SETRA239
Accuracy: 74 (hPa if units not given)
Precision: 20 (hPa if units not given)

Calibration: yes,

Comments:

**Additional
Information**

Suggested QC flag from Data Provider: NA

Additional Comments:

Citation for this Dataset:

Other References for this Dataset: